

LISTING OF THE CLAIMS:

1. (Currently amended) An apparatus for the application of a composition curable by ~~photo~~irradiation to a fastener having an externally threaded stem, comprising:

a coating section, including:

~~(i)~~—a coating conveyor for conveying the fasteners in a horizontal position to an application station, the coating conveyor comprising a rail parallel to, and horizontally separated from, an application surface and a first endless drive element vertically separated from the rail and application surface, wherein the fastener stem spans the rail and the application surface and is rotated over the rail and application surface and under the drive element, and
[[;]]

~~(ii)~~—an application station comprising an applicator from which the composition is dispensed onto the application surface, wherein the fastener stem is rotated through the dispensed composition by rolling movement over the rail and application surface and under the drive element ~~the conveyor for rotating at least part of the fasteners past the applicator for application of a circumferential band of composition to the fasteners stem; and~~

a curing section, including:

~~(iii)~~—a curing conveyor for conveying the fasteners in a horizontal position to an irradiation station, the curing conveyor comprising two, parallel, horizontally separated rails and a second endless drive element vertically separated from the rails, wherein the fastener stem having a circumferential band of composition thereon spans the

rails and is rotated over the rails and under the second drive element as it moves toward the ~~and arranged to rotate the fasteners for photoradiation station thereof;~~ and
(iv) ~~a~~ the photoradiation station for at least partially curing the composition applied to the each fastener stem.

2. Cancelled

3. (Currently Amended) An apparatus according to claim 1 wherein the composition is an at least two stage curable composition; the curable composition having a first cure stage which is activatable by photoradiation, and a second cure stage which is curable to secure the fastener in a fastening position.

4. (Currently Amended) An apparatus according to claim [[2]] 1 further comprising a fastener feeder for feeding fasteners one by one to the ~~first~~ coating conveyor.

5. (Currently Amended) An apparatus according to claim [[2]] 1 wherein the ~~first~~ coating conveyor extends through the application station.

6. (Currently Amended) An apparatus according to claim 1 wherein the application surface applicator is a horizontal surface of a coating block.

7. (Currently Amended) An apparatus according to claim 1 wherein the vertical separation between the first endless drive element and the application surface can be at least one dimension of the applicator may be altered by a user.

8. (Previously Presented) An apparatus according claim 1 further comprising temperature control means for regulating the temperature of the fasteners prior to application of composition thereto.

Claims 9-11. (Cancelled).

12. (Currently Amended) An apparatus according to claim 1 ~~[[2]]~~ wherein the apparatus further comprises a transfer mechanism for transferring the fasteners from the coating conveyor to the curing ~~second~~ conveyor.

Claims 13-19. (Cancelled).

20. (Currently Amended) An apparatus according to claim 1 comprising ~~wherein the application station comprises~~ a supply system ~~for~~ supplying curable composition to the application surface ~~applicator~~.

Claims 21-24. (Cancelled).

25. (Currently Amended) An apparatus according to claim 1 wherein the ~~photo~~irradiation station comprises a UV light source for irradiating applied composition with UV light.

Claims 26-27. (Cancelled).

28. (Currently Amended) An apparatus according to claim 1 ~~[[25]]~~ wherein the ~~photo~~irradiation station comprises a

radiation source housed in an enclosure which emits ~~focuses~~ radiation through an aperture therein.

Claims 29-69. (Cancelled).

70. (New) An apparatus for applying an at least partially cured composition to a fastener having an externally threaded shank, comprising:

a coating conveyor comprising two spaced supports defining a first fastener feed plane and a coating conveyor drive element spaced from the first plane, wherein the fastener shank can be disposed between the two supports and the drive element and the fastener can be rolled on the two supports from a fastener feed position toward a coating station by contact with the coating conveyor drive element;

the coating station comprising a support spaced from a coating block and a coating station drive element spaced from the coating block, the coating block comprising an application surface onto which a curable composition can be dispensed, wherein the fastener shank can be disposed between the coating block and the coating station drive element and the fastener can be rolled on the support and application surface by contact with the coating station drive element as it moves through the dispensed curable composition;

a curing conveyor comprising two spaced supports defining a second fastener feed plane and a curing conveyor drive element spaced from the second plane, the curing conveyor extending from a coated fastener feed position toward a fastener exit position, wherein the coated fastener shank can be disposed between the two supports and the curing conveyor drive element and the fastener can be rolled on the supports by contact with the

curing conveyor drive element as it moves toward the exit position; and

a radiation source capable of providing a beam of energy intersecting the second plane and the coated fastener shank.

71. The claim of 70 wherein the first fastener feed plane is horizontal.

72. The claim of 70 wherein the first and second fastener feed planes are coextensive.

73. The claim of 70 further comprising a fastener transfer mechanism between the coating conveyor and the curing conveyor.

74. The claim of 70 further comprising a transfer conveyor comprising two spaced supports defining a transfer fastener feed plane and a transfer drive element spaced from the transfer plane, the transfer conveyor extending from the coating station to the curing conveyor, wherein the coated fastener shank can roll between the two supports and the transfer drive element as it moves toward the curing conveyor.

75. The claim of 70 wherein the coating conveyor supports and curing conveyor supports are fixed and the coating conveyor drive element and the curing conveyor drive element are different, movable, endless loops of material.

76. The claim of 70 wherein the coating conveyor supports and curing conveyor supports are fixed, the coating conveyor drive element moves at a first speed and the curing conveyor drive element moves at a second speed different than the first speed.

77. The claim of 70 wherein the distance between the first plane and the coating conveyor drive element and the distance between the second plane and the curing conveyor drive element are independently adjustable.

78. A method of coating the externally threaded shank of a fastener with a radiation curable composition, comprising:

- orienting the fastener in an horizontal position;
- disposing the curable composition onto a horizontal application surface;
- rolling the horizontally oriented fastener over the curable composition disposed onto the horizontal application surface to provide a coated fastener having a band of curable composition around the fastener shank; and

- rolling the horizontally oriented coated fastener through an irradiation station wherein the band of curable composition is at least partially cured by exposure to radiation.

79. The method of claim 78 comprising the steps of independently controlling the fastener temperature and the curable composition temperature.

80. The method of claim 78 wherein the step of orienting the fastener in a horizontal position comprises orienting the fastener over spaced, parallel, fixed supports and under a movable drive element.

81. The method of claim 78 wherein the horizontally oriented fastener is rolled over the curable composition at a first speed and the horizontally oriented coated fastener is rolled through

Application No. 10/527,152

Response to Office Action dated May 28, 2008

an irradiation station at a second speed different than the first speed.